

Document No. 59-204292 to Hazemoto et al. (the “Hazemoto reference”).

Claim 18 is directed to a method for wavelength tuning of an optoelectronic component array which includes at least two optoelectronic components, including “*comparing a respective measured wavelength with a respective desired characteristic wavelength so as to determine a respective wavelength deviation for each of the at least two optoelectronic components*” and “*selectively changing a respective resistance value of a respective resistor arrangement connected between each of the at least two optoelectronic components and a respective resistance heater associated with each of the at least two optoelectronic components so as to achieve a respective thermal change of the respective resistance heater for setting the respective desired characteristic wavelength of each of the at least two optoelectronic components.*”

In contrast, the Hazemoto reference (according to the Abstract and Figures provided with the Office Action) purportedly concerns a semiconductor device in which the temperatures of a plurality of semiconductor light emitting elements on the same substrate are independently controlled “to obtain lights of a plurality of wavelengths. The Hazemoto reference further refers to having an array of semiconductor elements on a substrate where a heating part independently provided to each laser has an insulation member, a heat generating member, an electrode and a protection film. The temperature adjusting part has a supporting member, a temperature sensitive element detecting the temperature of the supporting member, a thermoelectric element heating and cooling the member based on information from the temperature sensitive element, and a heat dissipating fin to diffuse heat from the thermoelectric element to the atmosphere. (See Abstract, Hazemoto reference). The oscillation wavelength of the semiconductor laser is purportedly independently controlled by changing the current impressed on its heat generating member. (See Abstract, Hazemoto reference).

Claim 18 is not obvious based on the Hazemoto reference relied upon in the Office Action, at least because claim 18 refers to comparing a measured wavelength with a desired characteristic wavelength so as to determine a respective wavelength deviation for each of the at least two optoelectronic components. Moreover, claim 18 is not obvious based on the Hazemoto reference because claim 18 refers to selectively changing a resistance value of a resistor arrangement and a resistance heater associated with the optoelectric components. In fact, as explained above, the Hazemoto reference concerns a different objective of controlling oscillation wavelength of a semiconductor laser by changing the *current* impressed on its heat

generating member and does not teach or suggest wavelength tuning in which a measured wavelength is compared with a desired wavelength to determine a wavelength deviation for the optoelectronic components, and the Hazemoto reference does not teach or suggest selectively changing a resistance value of a resistor arrangement and a resistance heater, as in claim 18. (see Abstract, Hazemoto reference).

Accordingly, the Hazemoto reference does not teach or suggest the method claimed in claim 18 for wavelength tuning including comparing a measured wavelength with a desired characteristic wavelength to determine a wavelength deviation for each of the at least two optoelectronic components and selectively changing a resistance value of a resistor arrangement connected as claimed and a resistance heater associated as claimed so as to achieve a thermal change of the resistance heater for setting the desired characteristic wavelength of each of the at least two optoelectronic components.

It is therefore respectfully submitted that claim 18 is allowable.

Claim 28 contains some feature(s) analogous to claim 18, such as including a resistor arrangement. Accordingly, claim 28 is not obvious over the Hazemoto reference and is thus allowable, for essentially the same reason(s) as claim 18.

Additionally, claim 28 is directed to a device for the wavelength tuning of an optoelectronic component array having at least two optoelectronic components, including a “respective resistor arrangement connected between each respective at least one resistance heater and the common voltage or current source, a respective total resistance of each respective resistor arrangement being variable.”

As discussed above, the Hazemoto reference (according to the Abstract and Figures provided with the Office Action) purportedly concerns a semiconductor device in which the temperatures of a plurality of semiconductor light emitting elements on the same substrate are independently controlled “to obtain lights of a plurality of wavelengths. Further, the oscillation wavelength of the semiconductor laser is purportedly independently controlled by changing the current impressed on its heat generating member. (See Abstract, Hazemoto reference).

In addition to the reason(s) explained above, claim 28 is not obvious based on the Hazemoto reference because claim 28 refers to a resistor arrangement connected between each resistance heater and the common voltage or current source and the respective total resistance of each resistor arrangement is variable. Instead, as explained above, the Hazemoto reference concerns “changing the current impressed on [its] heat generating

member” to control an “oscillation wavelength.” (See Abstract, Hazemoto reference).

Accordingly, the Hazemoto reference does not teach or suggest the device claimed in claim 28 for wavelength tuning of an optoelectronic array. It is therefore respectfully submitted that claim 28 is allowable.

All of the remaining claims 19 to 27 and 29 to 36 depend from one of claims 18 and 28, and thus are allowable for essentially the same reasons.

Moreover, to reject a claim as obvious under 35 U.S.C. § 103, the prior art must describe or suggest each claim element and it must also provide a motivation or suggestion for modifying the elements in the manner contemplated by the claim. (See Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934 (Fed. Cir. 1990), cert. denied, 111 S. Ct. 296 (1990); In re Bond, 910 F.2d 831, 834 (Fed. Cir. 1990)). The cases of In re Fine, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988), and In re Jones, 21 U.S.P.Q.2d 1941 (Fed. Cir. 1992), also make plain that a subjective “obvious to try” standard is not proper. In particular, the Court in the case of In re Fine stated that:

Instead, the Examiner relies on hindsight in reaching his obviousness determination. . . . One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

In re Fine, 5 U.S.P.Q.2d at 1600 (citations omitted; emphasis added). Likewise, the Court in the case of In re Jones stated that:

Conspicuously missing from this record is any evidence, other than the PTO's speculation (if it be called evidence) that one of ordinary skill . . . would have been motivated to make the modifications . . . necessary to arrive at the claimed [invention].

In re Jones, 21 U.S.P.Q.2d at 1943 & 1944 (citations omitted). In short, there must be evidence of why a person having ordinary skill in the art would be motivated to modify a reference to provide the claimed subject matter of the claims.

More recently, the Federal Circuit in the case of In re Kotzab has made plain that even if a claim concerns a “technologically simple concept” -- which is not even the case here, there still must be some finding as to the “specific understanding or principle within the knowledge of a skilled artisan” that would motivate a person having no knowledge of the claimed subject matter to “make the combination in the manner claimed”, stating that:

In this case, the Examiner and the Board fell into the hindsight trap. The idea of a single sensor controlling multiple valves, as

opposed to multiple sensors controlling multiple valves, is a technologically simple concept. *With this simple concept in mind, the Patent and Trademark Office found prior art statements that in the abstract appeared to suggest the claimed limitation. But, there was no finding as to the specific understanding or principle within the knowledge of a skilled artisan that would have motivated one with no knowledge of Kotzab's invention to make the combination in the manner claimed.* In light of our holding of the absence of a motivation to combine the teachings in Evans, we conclude that the Board did not make out a proper *prima facie* case of obviousness in rejecting [the] claims . . . under 35 U.S.C. Section 103(a) over Evans.

(See In re Kotzab, 55 U.S.P.Q.2d 1313, 1318 (Federal Circuit 2000) (italics added)). Here again, there have been no such findings.

It is therefore respectfully submitted that the claims rejected as obvious are allowable over the reference relied upon. Thus, it is respectfully submitted that all of claims 18 to 36 are allowable for the foregoing reasons.

CONCLUSION

In view of all of the above, it is believed that any rejections have been obviated, and that claims 18 to 36 are allowable. It is therefore respectfully requested that the rejections be withdrawn, and that the present application issue as early as possible.

If for any reason the Examiner believes that contact with Applicants' attorney would advance the prosecution of this application, he or she is invited to contact the undersigned at the number given below.

Respectfully submitted,

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